



# Launch Mission Execution Forecast

**Mission:** Falcon 9 COSMO-SkyMed

**Issued:** 28 Jan 2022 / 0830L (1330Z)

**Valid:** 28 Jan 2022 / 1806 – 1817L (2306 – 2317Z)



**Forecast Discussion:** Low pressure which brought persistent showers to the Spaceport yesterday will gradually shift out into the Atlantic today, leading to much lower coverage of rain. A strong cold front approaching from the northwest will invade Florida later today. While a few sprinkles or light showers may accompany this front, the higher threat is for layered thick cloudiness to spill in from the west as the day progresses. Thus, the main weather concerns for launch today are the Thick Cloud Layers Rule and Cumulus Cloud Rule.

For delay day, dry but breezy conditions can be expected as continental surface high pressure builds across Florida. Liftoff winds will be the primary weather concern.

Launch Day	Probability of Violating Weather Constraints						
	30%	Primary Concerns: Thick Cloud Layers Rule, Cumulus Cloud Rule					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility:	Isol Showers / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Moderate
	Temp/Humidity:	57°F / 82%	Cumulus	Scattered	3,000	9,000	Booster Recovery Weather: Low
	Liftoff Winds (200'):	310° 15 - 20 mph	Altostratus	Broken	16,000	24,000	Solar Activity: Low
24-Hour Delay	Probability of Violating Weather Constraints						
	20%	Primary Concerns: Liftoff Winds					
	Weather Conditions					Additional Risk Criteria	
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear: Moderate
	Temp/Humidity:	45°F / 50%	Cumulus	Few	2,500	5,000	Booster Recovery Weather: Low
	Liftoff Winds (200'):	310° 20 - 25 mph					Solar Activity: Low
<i>Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity.</i>							
Next Forecast Will Be Issued		As Required					